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An Inaugural Dissertation On the Modus Operandi of Medicines.

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In the entire range of Medical science, there is no subject on which a greater diversity of sentiment prevails, than on the Modus Operandi of Medicines.

While one class of physicians contend that the remedial powers of the different articles of the Materia Medica may all be explained on the principle of nervous association, denominated in the familiar language of the day Sympathy, or consent of parts; another no less respectable, not content with the doctrine of Sympathy alone, declare that the principle of absorption is alike necessary for a full and clear illustration of the subject. The advocates of the Sympathetic doctrine allege, that all Medicines, in the first place produce a local impression, which being communicated by some, as yet, mysterious agency, to more distant parts throws them into action corresponding with the nature

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of the article, and in these remote parts, the entire effects of the medicines administered are frequently displayed.

The second class of physicians admit to a limited extent, the sympathetic doctrine, but contend that the operation of medicines is principally effected by their being absorbed into the circulatory system, and by that system carried to the several parts, on which their respective actions are developed. To the first of these doctrines, or the sympathetic exclusively, I am inclined, not less from my own reflections on the subject, than from the consideration, that the Professor of the Institutes and practice of Medicine in the University of Pennsylvania, is deservedly ranked as the leading advocate of the doctrine.

In considering this subject, it will not be foreign to the object of our enquiry, cursorily to notice the processes of digestion

and assimilation. The food destined for the support and nourishment of the body, being masticated and mixed with the saliva, is carried into the stomach, there it meets with a secretion from the small blood vessels of the stomach, called the gastric fluid, which converts it into one homogeneous substance denominated chyme, this being carried into the duodenum, unites with the bile and pancreatic juice which are deposited in this intestine by their respective glands, thence the chyme may passes on into the small intestine, where the lacteals separate and take up the chyle, which is carried by the absorbent system into the circulation, while the excrementitious matter is finally eliminated from the body.

The chyle having been thus carried into the circulatory fluids is evidently transmuted into pure blood, and continues to nourish and sustain the various

functions of the system.

Our anatomical research es teach us that medicinal substances to reach the circulation must also pursue the same route, because there are no other means by which they can attain the same destination. It naturally follow that they must also be subject to the same changes of decomposition and new combination which the food undergoes, because the analysis of the human fluids have long since taught us, that the chyle obtained from the most diverse aliments never exhibits any variety in its appearance and composition. Independently of this uniformity of the action of the stomach, the whole of the digestive functions, the absorbents are endowed with the capacity of rejecting all substances which are of an offensive and deleterious nature.

From these laws of the animal economy it therefore, follows,

[illegible] in their function and, in different cases, their function is entirely changed, or so modified that their characteristic is no entirely lost.

The essential power, power of every remedial agent, depends upon its characteristic property, the action becoming exact when this property is destroyed, consequently as soon as medicines are used for the dynamical functions capable of being taken up by the absorbent system their remedial character ceases. This argument continues to gain strength on a prospective investigation of the subject. We are not only given to choose a homogeneous fluid but even the blood itself, the very location of the morbid [illegible] or active medicines according to the most strenuous advocate for the Hahnemanian

of absorption

The weight of evidence in support of this position is overwhelming. It is considered as an established fact by the accurate and learned Fordyce in his invaluable treatise on febrile diseases, and Lind who has written so ably on the diseases of hot climates, dwells particularly on the homogeneous nature of the blood, in his excellent treatise on Scurvy, in which he clearly shows that when the body of a scorbutic patient is to appearance little less than a mass of putrefaction that the [illegible] retains its homogeneous nature, [illegible] the [illegible] of [illegible] is evident.

Were we disposed we might fill the space allotted for a dissertation with quotations of authority on this point, but after citing those [illegible] of the medical profession we deem it superfluous to adduce additional

disease

The establishment of the simple fact that the poisonous and unchangeable nature of the blood must shake the fabric of the universal doctrine. For if there be any power in nature the agency of absorption can act, it must be in the detection of medicinal substances in the skin or elsewhere as we find corroborative evidence in the urine. It is true that we hear much about the odour of Camphor, Asafoetida, garlic, & other odorous substances, but does this prove the doctrine of absorption? We think not. We know that odours not unfrequently penetrate through skins that have been considered impermeable substances. We consider that the whole system may become impregnated with these odoriferous substances by their being transmitted through it, in the same way as through inanimate matter, without having any connection particularly with the arterial or circulatory systems

But leaving the question aside for the present what will contribute and consider an account of the blood has passed out of the heart from any of the active arterial vessels we must concede however that the serum matter, or matter and therefore has been discovered in the serum of the blood, but this is not until the blood may be supposed to have undergone a partial decomposition for what are the circumstances under which the coagulation takes place of the blood in the best place is withdrawn from the influence of circulation stimulus and thoroughly removed from the active energy of the system has ceased to longer operating it separates into serum and coagulum, a fluid which may be considered as the incipient state of decomposition, and it is not until after this stage that the secreting principles are developed.

A source of great error in prosecuting research on this subject results from not keeping our attention constantly directed to the grand distinction of living and dead matter, and the very diverse nature of the several laws which govern them.

The laws of physiology are entirely distinct from those of chemistry and we should subject ourselves to ridicule were we to attempt to explain a chemical experiment on those principles which appertain exclusively to vitality, and yet we find that the laws of chemical science are constantly resorted to for the purpose of illustrating the phenomena of vital actions

The power of the vital energies has never been fully appreciated, but so far as the subject has been investigated the results have been conclusive as regards its action

[illegible] effects. [illegible] [illegible] [illegible]

nations can be established.

In reviewing the labours of our medical predecessors, we are impressed with mingled emotions of ridicule and regret, when we reflect on the great waste of time and industry which have been expended in the prosecution of experiments on dead matter to shew the principles and functions of living organized bodies, and we are constrained to apply this charge to some of the most illustrious members of the profession.

It was the application of such strength to reality, for the illustration of trifling phenomena, which threw a cast of obscurity around the otherwise splendid volumes of Boerhaave and Sydenham.

One of the strongest arguments which the Homœopathic doctrine on, is the happiness effects which result from the

introduction of medicinal substances into the blood vessels of living animals, and if full credence and entire confidence could be given to the reports of some of the experimentalists, little more would be required to confirm and establish the humoral doctrine.

(Who could doubt but that medicines operated on the system by being absorbed into the circulation, when precisely the same effects as result from their internal administration might be obtained by injecting into a vein a small quantity of any given article.

The fallacy however which attends most experiments is considerably lightened by their being performed on living animals, and we know no circumstances under which fallacious impressions would be more likely to occur, than in trying the effects of medicines on tortured, mangled, and afflicted

animals.

The animal functions it must be admitted, are greatly under the influence of corporeal suffering. We have seen the deleterious effects of Opium suspended by severe castigation, and we shall endeavour to show that most of the effects which have been attributed to injected Medicines, may be justly ascribed to the violence with which they were administered. We have seen copious discharges of faces and urine from cats produced from great alarm, and have also witnessed the same discharges from a servant boy in consequence of a severe whipping. Long and profound fits of pain, not unfrequently occur in persons of nervous temperaments in consequence of sudden and great alarms.

Some information by a gentleman of the Medical Class (Mr Powe) from South Carolina

on whose veracity I rely with the most implicit confidence, that he knew obstinate constipation in a case of cholera completely removed, when all the usual remedies had proved ineffectual, ~~to~~ by a sudden and violent alarm, purposely induced by the physician. This patient had been attended by other physicians, when the one in question was consulted, who on entering the patient's apartment, threw off his coat and swore that if the patient did not immediately that he would kill him. The poor fellow terribly affrighted immediately called for the chamber and had a copious discharge from the bowels. The suspension of a cord over certain persons and particularly those unaccustomed to witnessing such spectacles not unfrequently produces vomiting and our sympathetic feelings are so powerful in some instances that in witnessing great emotions of grief or joy we are not unfrequently affected in a similar manner.

Our medical

books abound with cases of Epilepsies, and other spasmodic and convulsive diseases, which have been produced exclusively by seeing others labour under affections of a similar nature.

In addition to the above cited facts and arguments, we are induced to attribute, the effects related by experimentalists, rather to the severity of the operations, than to any peculiar action of the medicines, from their informing us that the same medicine under like circumstances produces dissimilar effects, that it sometimes purges, sometimes has an emetic effect and at other times only generally deranges the actions of the System by inducing convulsions, and other spasmodic actions.

With the view of fulfiling the duty which enjoins the preparation of an Inaugural dissertation, we have endeavoured to present some of the facts and reasonings, which we conceive may

be adduced in favour of the sympathetic doctrine of the Modus Operandi of Medicines. Fully impressed with the consciousness of the imperfect manner in which the duty has been executed, we submit the result of our labour animated by the [illegible] hope that its numerous imperfections and errors, may be regarded with that kind of indulgence which enlarged and liberal minds are always wont to bestow on the crude productions of immature intellect.

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